

toward the top. The attachment of the 11th segment is slightly to the right with two extra segments developed on the left or outside. The middle growth—extra segment—is moveable, narrower at the base, and fits into a socket. The other extra segment appears to be quite rigid. Also, on the upper side of the 10th segment, and near its base, is a small protuberance or tubercle.

No other deformity was observed on this beetle. Of the many specimens of this species taken in the light trap at Mesa, as well as other cerambycids collected throughout Arizona during the past few years, this is the first one observed to have had a deformed antenna.

SUPPOSED LARVA OF PROTANYDERUS
VIPIO (OSTEN SACKEN) DISCOVERED
IN CALIFORNIA

(Diptera: Tanyderidae)

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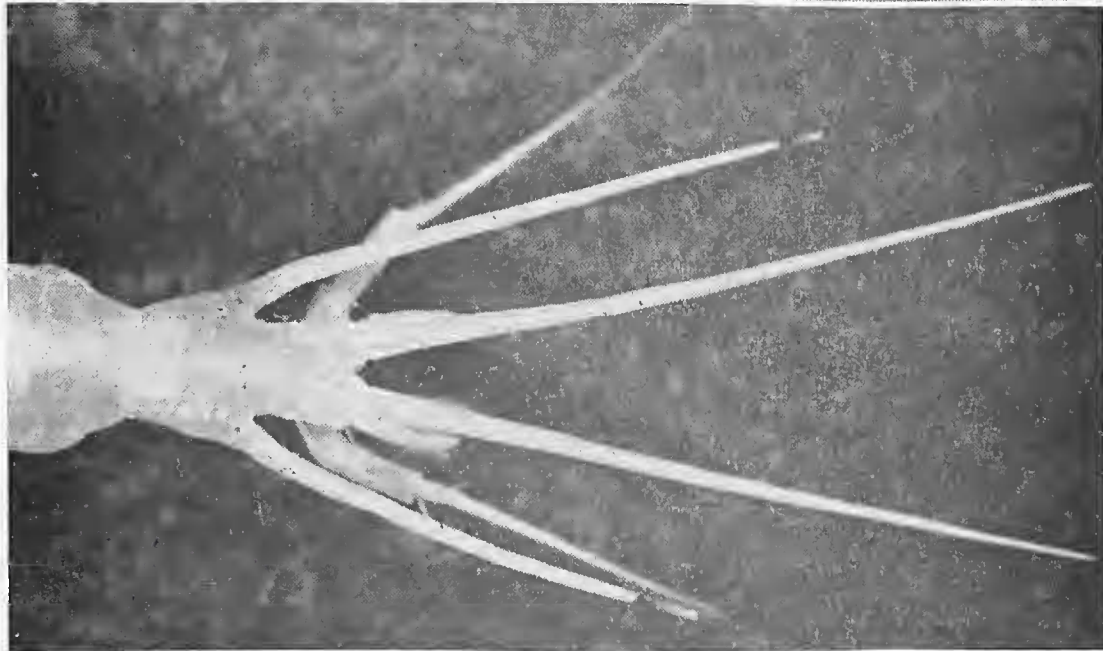
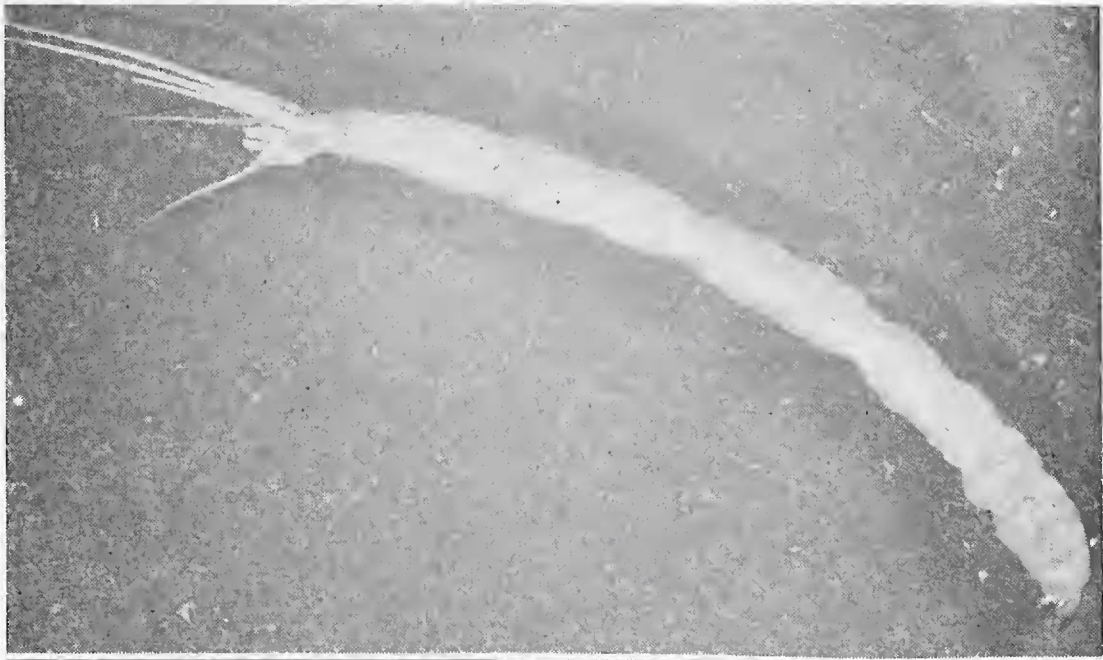
U.S. Fish and Wildlife Service, Seattle, Washington

A larva of the primitive crane-fly family, Tanyderidae, has been discovered in Mill Creek, a tributary of the Sacramento River, near Los Molinos, in Tehama County, California. The larva was found in a bottom sample collected in May of 1961. The sample consisted of gravel and silt taken from an area of slow moving water eight to ten inches deep. A search of literature concerning the family has revealed that the immature stages of Tanyderidae have not been reported in California. Adults of two species, however, are found in this state. They are *Protanyderus vanduzeei* Alexander, and *P. vipio* Osten Sacken.

The family comprises 10 genera, with about 35 known species to this date. The only Tanyderidae whose early stages have been

EXPLANATION OF FIGURE

Fig. 1 (Upper), larva of supposed *Protanyderus vipio*, showing complete organism with spiracle on prothorax. 5X. Fig. 2 (Middle), dorsal view of posterior region of larva of supposed *Protanyderus vipio*, showing six filaments and spiracle on eighth abdominal segment. 10X. Fig. 3 (Lower), ventral view of posterior region of larva of supposed *Protanyderus vipio*, showing the two fleshy pseudopods and four anal gills. 10X.



described are *Peringueyomyia barnardi* Alexander in South Africa (Wood, 1952) and *Protoplasia fitchii* Osten Sacken in eastern North America (Alexander, 1930). There are a number of similarities between the Mill Creek larva and those of the above-mentioned species.

Copies of the photographs included in this note were sent to Dr. Charles P. Alexander, Department of Entomology, University of Massachusetts, who unquestionably places the larva in the family Tanyderidae. Based on the geographical location of the collection, and the measurements of the larva, Dr. Alexander confirms the writer's supposition that the larva belongs to the species *Protanyderus vipio*.

Only one larva was found in the Mill Creek sample, and is preserved at the U. S. Bureau of Commercial Fisheries Biological Laboratory, 2725 Montlake Boulevard, Seattle 2, Washington.

Larva.—Length, from head to end of longest filaments, 22 mm. Longest filaments alone, 7 mm. Greatest diameter of body, 2 mm. General coloration, dirty white. *Body* (Fig. 1): Eucephalous; consisting of 12 terete segments, those of the thoracic region shorter and more dilated than those of the abdomen. Posterior end of abdomen with six long filaments, of which one pair is borne near the posterior end of a pair of anal pseudopods. Four simple anal gills. *Head*: A compact, chitinized capsule; antennae very short, apparently three-segmented (mouth parts of this larva damaged, no accurate description). *Thorax*: Prothorax longer than remaining thoracic segments. Prothorax divided by a constriction into two rings; a small, black spiracle (Fig. 1) on posterior ring near mid-line of body. Mesothorax and metathorax are divided on dorsal surface into two portions by a small constriction. *Abdomen*: Nine abdominal segments that gradually increase in length to the eighth; eighth and ninth decrease rapidly in diameter. Abdominal segments separated by a narrow constriction or ring. Eighth abdominal segment (Fig. 2) with a small black spiracle on side near the posterior margin. Immediately posterior to the spiracle arises a long filament that has a black area near the tip. Ninth abdominal segment (Fig. 3) somewhat shorter than the eighth. From the posterior margin, and on the ventral surface, arise two fleshy pseudopods (Fig. 3), each giving rise to a long filament. *Setae*: Located on dorsal surface and each side of head; a row on each side of body near the ventral-lateral margin; each caudal filament bears from one to three. (A number of setae were broken off of this larva).

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A NEW SUBSPECIES OF XYLOCOPA TABANIFORMIS SMITH FROM MEXICO¹

(Hymenoptera: Apoidea)

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The chiefly Nearctic subgenus *Notoxylocopa* is composed of mostly small but robust carpenter bees which are very reminiscent of certain large species of *Anthophora*. The males, unlike any other known subgenus of *Xylocopa*, have the bridge of the penis valves greatly produced posteriorly. The females of this group appear to be most closely related to the essentially Palaearctic subgenus *Rhysoxylocopa* (Hurd and Moure, 1963).

Although a critical study of the eleven described forms of the *Xylocopa tabaniformis* complex is underway, the new subspecies described below is offered at this time so as to make the name available for a comparative ethological study (Janzen, 1964).

Xylocopa (*Notoxylocopa*) *tabaniformis melanosoma* O'Brien and Hurd, new subspecies

Male.—Vestiture of head black, but with some intermixed pale pubescence especially between antennal sockets; vestiture of anterior one-third to one-fourth of mesonotum predominantly pale gray, usually tinged with brown and intermixed with some black hairs and consequently appearing medium gray, remainder of mesonotum dark pubescent; metasomal terga entirely dark pubescent, without pale pubescence; legs chiefly black or brownish

¹ One of a series of studies on carpenter bees made possible by a grant from the National Science Foundation (G-19385).